

STORMS AND WEATHER WARNINGS

WASHINGTON FORECAST DISTRICT

Few disturbances crossed the country during June and those that did were of slight or moderate intensity. Consequently no storm or small-craft warnings were issued for the Atlantic and east Gulf coasts.

Advisory warnings were issued, however, during the 20th-22d in connection with a tropical disturbance of slight intensity that moved inland over Mexico in the vicinity of Tampico. Pressure fell gradually over the northwestern Caribbean Sea during the 15th-17th, the decrease in that time amounting to 0.14 inch at Tela, Spanish Honduras, and Belize, British Honduras, and 0.04 inch at Swan Island. A further slight decrease took place at these stations on the 18th. By the 19th this decrease in pressure had reached the southwestern portion of the Gulf of Mexico and on the morning of the 20th Tampico, Mexico, reported a barometer reading of 29.68 inches and Brownsville, Tex., 29.74 inches. Rain set in along the Texas coast during the night of the 19th-20th, and excessive rainfall occurred at Brownsville and Corpus Christi on the 21st. The disturbance was moving slowly west-northwestward across the Bay of Campeche during this period and it moved inland during the 21st-22d. Heavy rains occurred at several Mexican stations. No strong winds were reported in connection with the disturbance.

No frost warnings were issued, except for the interior of northern New England on the 9th, and for the cranberry bogs of New Jersey on the 4th, 5th, 7th, and 9th.—*Charles L. Mitchell.*

CHICAGO FORECAST DISTRICT

The month was marked by rapid movement of storm areas across the region, with frequent rains, except in the extreme western portion, and with changeable temperature which averaged, on the whole, considerably below the normal, except in the Far Southwest. The frequency of storms and lack of sunshine prevented the temperature from maintaining high maxima, except for brief periods. The month was, therefore, abnormal, in point of rainfall and coolness.

However, except for a few local squalls, no storm caused winds of a marked character on the Great Lakes until toward the close of the month. A disturbance which developed in the Far West was centered on the morning of June 28 in Iowa. This storm moved northeastward to Ontario and the St. Lawrence Valley directly across the Great Lakes, and was attended by fresh to strong winds, severe squalls, and tornadoes from the Middle Mississippi Valley eastward over the Lake Erie district. Small-craft warnings were ordered for all Lake stations on the morning of the 28th, with advice that the winds would be fresh and strong and accompanied by squalls. On the morning of the 29th north-west warnings were ordered hoisted on Lakes Erie, Ontario, and southern Huron.

Frost warnings were issued on the 7th and 9th for localities in the Northwest and at various times during the month for the cranberry marshes in Wisconsin. The season in the marshes was unusually late, preventing the vines from developing normal growth.

Special forecasts were issued daily in the interests of the fruit growers of Door County, Wisconsin, and of southwestern Lower Michigan.

Fire-weather forecasts were forwarded daily to the Forest Service officials in western Montana.

A special forecast was made for southeastern Lower Michigan on June 22d, in connection with the aerial fox and hounds race conducted by the Detroit Free Press. It served its purpose, as shown by the following statement from Mr. Norman B. Conger, meteorologist, Detroit, Mich.:

The winds from the southwest prevailed during the time of the flight, as forecast.

Mr. Ralph Upson, who had charge of the balloon flights, and the Free Press force, were enthusiastic in their thanks for the information furnished.

—*H. J. Cox.*

NEW ORLEANS FORECAST DISTRICT

After the 10th, dry, hot weather prevailed in much of the district; but this condition was broken by showers and cooler weather for a few days at the beginning of the last decade and again at the close of the month. Areas or troughs of low pressure, moving east or northeast, were generally shallow and most of them were attended by little or no precipitation in the district.

On the 20th-21st, during the moderate disturbance in the Gulf east of Tampico, Mexico, described under Washington Forecast District, winds on the Texas coast blew rather persistently from the southeast and were stronger than at other times during the month, partaking somewhat of the character of moderate thundersqualls. Small-craft warnings were displayed on the 21st in the Corpus Christi district by the Weather Bureau official at that place and were justified.—*R. A. Dyke.*

DENVER FORECAST DISTRICT

Frost warnings were issued for the colder agricultural districts of Utah and western Colorado on the morning of June 7, on the morning of the 8th for Utah and southwestern Colorado, and again on the morning of the 9th for eastern Utah and southwestern Colorado. In each case these warnings were justified, as indicated by reports either of the actual occurrence of frost or of temperatures considerably below the critical point for frost formation. The coldest at Modena, Utah, was 2° above freezing, while at Durango, Colo., a temperature of 33° was recorded on the mornings of the 8th and 10th and of 32° on the morning of the 9th.

The cause of these low night temperatures was the development of a pronounced low-pressure area, the center of which passed eastward across the northern portion of the district, and the approach of an area of high pressure from the north Pacific States and adjacent Canadian Provinces, areas between which the pressure gradient was steep and temperature contrasts marked.

On the evening of Tuesday, the 17th, a fire-weather warning was issued to include the forested districts of Utah, Arizona, and New Mexico, forecasting strong westerly winds, local electric storms, and cooler weather, for Wednesday, the 18th, and probably Thursday, the 19th. The occasion for issuing the warning was that the fire hazard had become great, due to a deficiency of precipitation and to a week of unusually high temperatures, while a low-pressure area had developed marked intensity and showed that it was moving eastward. On the following day wind velocities reported by Weather Bureau offices and Forest Service lookout stations ranged from brisk winds to fresh gales. A velocity of 46 miles per